

Title (en)

METHOD FOR RECYCLING CARBON DIOXIDE (CO₂)

Title (de)

VERFAHREN ZUR WIEDERVERWERTUNG VON KOHLENDIOXID (CO₂)

Title (fr)

PROCÉDÉ DE RECYCLAGE DE DIOXYDE DE CARBONE (CO₂)

Publication

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Application

EP 11736548 A 20110117

Priority

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Abstract (en)

The invention refers to a recycling process of a so-called gaseous flow (106) of CO₂ essentially containing molecules of CO₂, said process comprising the following steps: - heating of said gaseous flow of CO₂ at a pyrolysis temperature of the material containing carbon (104); - pyrolysis of a load of a carbon-containing material (104) containing elements of carbon by said gaseous flow, said pyrolysis reducing the molecules of CO₂ by said elements of carbon to produce a first gaseous flow (110) essentially containing molecules of carbon monoxide (CO) at high temperature; - oxidation of said molecules of carbon monoxide (CO) by elements of oxygen (O), said oxidation producing a second gaseous flow (114) essentially containing molecules of CO₂; - reduction of said molecules of CO₂ of said second gaseous flow (114), said reduction supplying a third gaseous flow (120) essentially containing molecules of carbon monoxide (CO). It also refers to a system to perform such a process.

IPC 8 full level

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